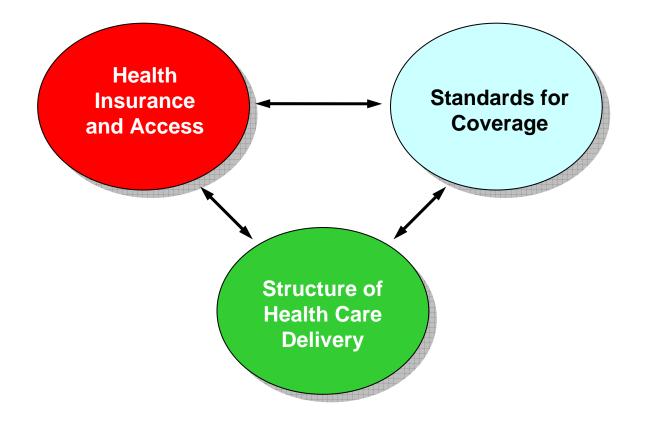
Value-Based Competition in Health Care: Issues for Singapore

Professor Michael E. Porter

Singapore November 28, 2006

This presentation draws Michael E. Porter and Elizabeth Olmsted Teisberg: <u>Redefining Health Care: Creating Value-Based Competition on Results</u>, Harvard Business School Press, May 2006. Earlier publications about health care include the *Harvard Business Review* article "Redefining Competition in Health Care" (June 2004). No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means electronic, mechanical, photocopying, recording, or otherwise — without the permission of Michael E. Porter and Elizabeth Olmsted Teisberg.

Issues in Health Care Reform



The Paradox of U.S. Health Care

The United States has a private system with intense competition

But

- Costs are high and rising
- Services are **restricted** and often fall well short of recommended care
- In other services, there is **overuse** of care
- Standards of care often lag and fail to follow accepted benchmarks
- **Diagnosis errors** are common
- Preventable treatment errors are common
- Huge quality and cost differences persist across providers
- Huge quality and cost differences persist across geographic areas
- Best practices are **slow** to spread
- Innovation is resisted



- Competition is **not** working
- How is this state of affairs possible?

Competition on the Wrong Things Zero-Sum Competition in U.S. Health Care

- Competition to **shift costs**
- Competition to increase bargaining power
- Competition to capture patients and restrict choice
- Competition to **restrict services** in order to reduce costs



 None of these forms of competition increases value for patients

Competition at the Wrong Levels

Too Broad

 Between broad line hospitals, networks, and health plans

Too Narrow

 Performing discrete services or interventions

Too Local

 Focused on serving the local community



• Market definition is misaligned with patient value

1. The focus should be on value for patients, not just lowering costs.

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- 2. There must be **unrestricted competition** based on **results**.
 - Results vs. supply control or process compliance
 - Get patients to excellent providers vs. "lift all boats"

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- 2. There must be **unrestricted competition** based on **results**.
- 3. Competition should center on **medical conditions** over the **full cycle of care**.

What is a Medical Condition?

- A medical condition is an interrelated set of patient medical circumstances best addressed in an integrated way
 - Medical Condition

- Patient's perspective

Specialties / Functions

- Includes most common co-occurrences
- Served through Integrated Practice Units (IPUs)
- Providers can and should define the boundaries of a given medical condition differently based on patient populations
- Most providers will serve multiple medical conditions through multiple IPUs

What Businesses Are We In?

Hypertension Management

Nephrology practice



- Chronic Kidney Disease
- End-Stage Renal Disease
- Kidney Transplants

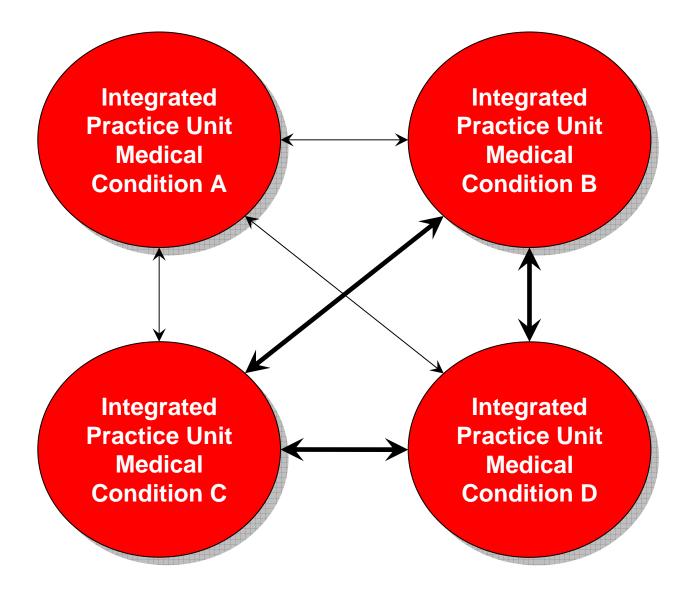
The Care Delivery Value Chain Breast Cancer Care

KNOWLEDGE MANAGEMENT			 			
INFORMING	 Education and reminders about regular exams Lifestyle and diet counseling 	Counseling patient and family on the diagnostic process and the diagnosis	• Explaining and supporting patient choices of treatment	 Counseling patient and family on treatment and prognosis 	Counseling patient and family on rehabilitation options and process	Counseling patient and family on long term risk management
MEASURING	Self examsMammograms	Mammograms Ultrasound MRI Biopsy BRACA 1, 2		Procedure- specific measurements	Range of movement Side effects measurement	• Recurring mammograms (every 6 months for the first 3 years)
ACCESSING	 Office visits Mammography lab visits 	Office visits Lab visits High-risk clinic visits	Office visits Hospital visits	 Hospital stay Visits to outpatient or radiation chemotherapy units 	Office visits Rehabilitation facility visits	•Office visits •Lab visits •Mammographic labs and imaging center visits
	MONITORING/ PREVENTING	DIAGNOSING	PREPARING	INTERVENING	RECOVERING/ REHABING	MONITORING/ MANAGING
	 Medical history Monitoring for lumps Control of risk factors (obesity, high fat diet) Clinical exams Genetic screening 	 Medical history Determining the specific nature of the disease Genetic evaluation Choosing a treatment plan 	 Medical counseling Surgery prep (anesthetic risk assessment, EKG) Patient and family psycholo- gical counseling Plastic or onco- plastic surgery evaluation 	 Surgery (breast preservation or mastectomy, oncoplastic alternative) Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy) 	 In-hospital and outpatient wound healing Psychological counseling Treatment of side effects (skin damage, neurotoxic, cardiac, nausea, lymphodema and chronic fatigue) Physical therapy 	 Periodic mammography Other imaging Follow-up clinical exams for next 2 years Treatment for any continued side effects
						Breast Cancer Specialist

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Other Provider Entities

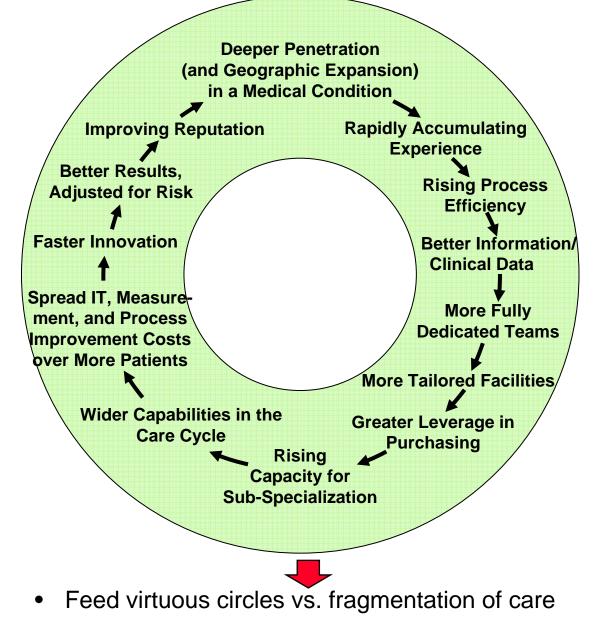
Levels of Medical Integration Within Medical Conditions versus Across Medical Conditions



- 1. The focus should be on value for patients, not just lowering costs.
- 2. There must be **unrestricted competition** based on **results**.
- 3. Competition should **center on medical conditions** over the **full cycle of care**.
- 4. High quality care should be less costly.
 - Prevention
 - Early detection
 - Right diagnosis
 - Early treatment
 - Right treatment to the right patients
 - Treatment earlier in the causal chain
 - Fewer mistakes and repeats in treatment
 - Fewer delays in care delivery
 - Less invasive treatment methods
 - Faster recovery
 - Less disability
 - Slower disease progression
 - Less need for long term care
- Better health is inherently less expensive than worse health

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- 4. High quality care should be **less** costly.
- 5. Value is driven by provider **experience**, **scale**, and **learning** at the **medical condition level**.

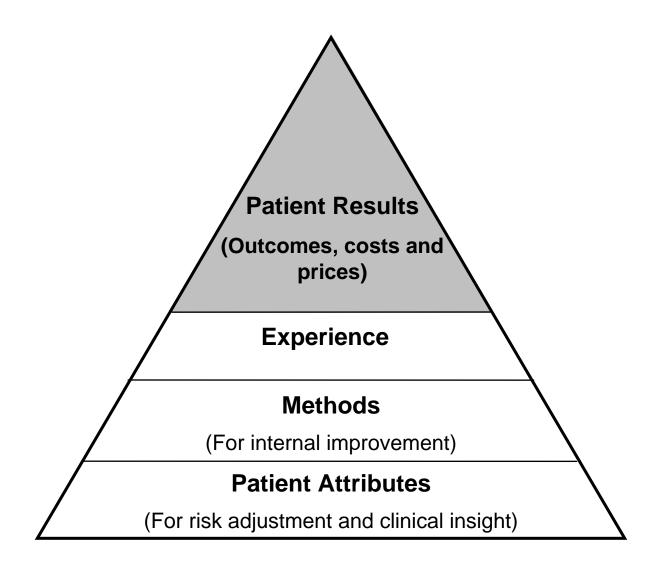
The Virtuous Circle in a Medical Condition



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- 5. Value is driven by **provider experience**, **scale**, and **learning** at the medical condition level.
- 6. Competition should be **regional** and **national**, not just local.
 - Virtuous circles extend across geography
 - Management of care cycles across geography
 - Partnerships and inter-organizational integration

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- 5. Value is driven by **provider experience**, **scale**, and **learning** at the medical condition level.
- 6. Competition should be **regional** and **national**, not just local.
- 7. Information on results, costs, and prices needed for value-based competition must be widely available.

The Information Hierarchy



Boston Spine Group

Clinical and Outcome Information Collected and Analyzed

OUTCOMES

Patient Outcomes

(before and after treatment, multiple times)

Visual Analog Scale (pain)

Owestry Disability Index, 10 questions (functional ability)

SF-36 Questionnaire, 36 questions (burden of disease)

Length of hospital stay

Time to return to work or normal activity

Service Satisfaction

(periodic)

Office visit satisfaction metrics (10 questions)

Overall medical satisfaction

("Would you have surgery again for the same problem?")

Medical Complications

Cardiac Myocardial infarction Arrhythmias Congestive heart failure Vascular deep venous thrombosis Urinary infections Pneumonia Post-operative delirium Drug interactions

Patient returns to the operating room Infection Nerve injury Sentinel events (wrong site surgeries) Hardware failure

METHODS

Surgery Process Metrics

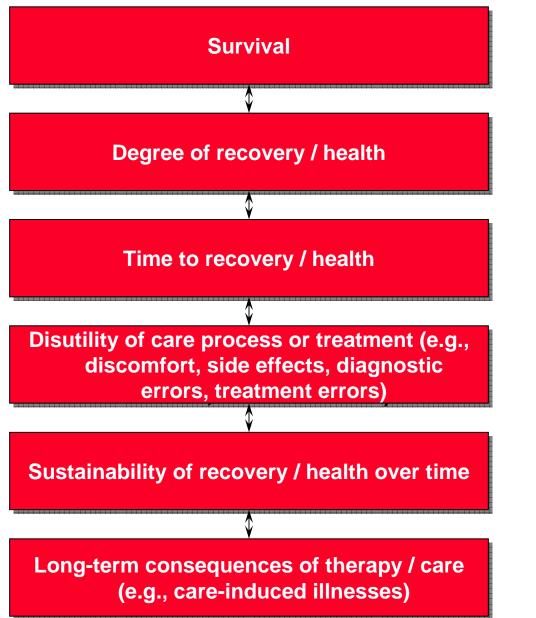
Operative time

Blood loss

Devices or products used

Measuring Value

The Outcome Measures Hierarchy



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- 7. Information on results and prices needed for value-based competition must be widely available.
- 8. Innovations that increase value must be strongly rewarded.
 - Measure value
 - Care cycle reimbursement

Is Competition Desirable in Health Care?

Good Competition

- Competing to gain market share in medical condition based outcomes and costs
- Integrating services over the care cycle
- Moving care to outpatient facilities
- Expanding across geography in medical conditions

Bad Competition

- Exercising power to shift costs to patients or other actors
- Restricting patients' choice of providers
- Ownership of physician practices to capture referrals
- Hospital mergers with no reallocation and specialization of services



• The essential question is whether competition is aligned with patient value

Moving to Value-Based Competition <u>Providers</u>

Defining the Right Goals

• Superior patient value

Strategic and Organizational Imperatives

- Redefine the business around medical conditions
- Choose the range and types of services provided
- Organize around **medically integrated practice units**
- Create a **distinctive strategy** in each practice unit
- Measure results, experience, methods, and patient attributes by practice unit
- Move to **single bills** and new approaches to **pricing**
- Market services based on excellence, uniqueness, and results
- Grow locally and across geography in areas of strength

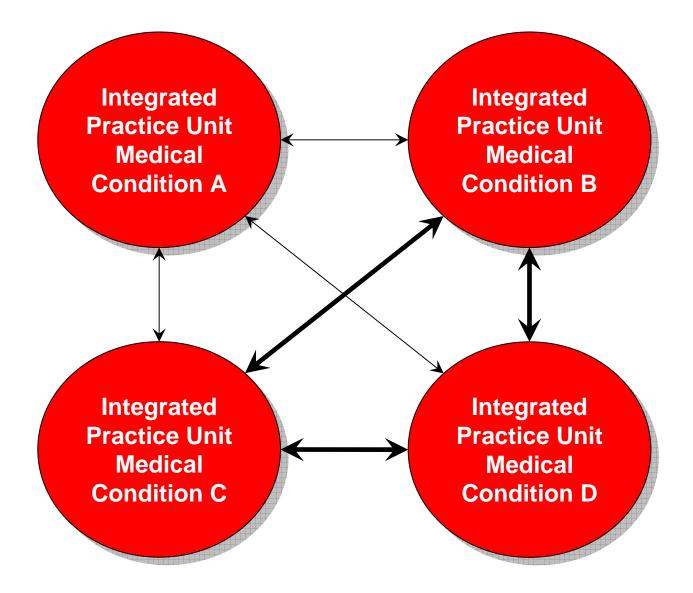


• Employ partnerships and alliances to achieve these aims

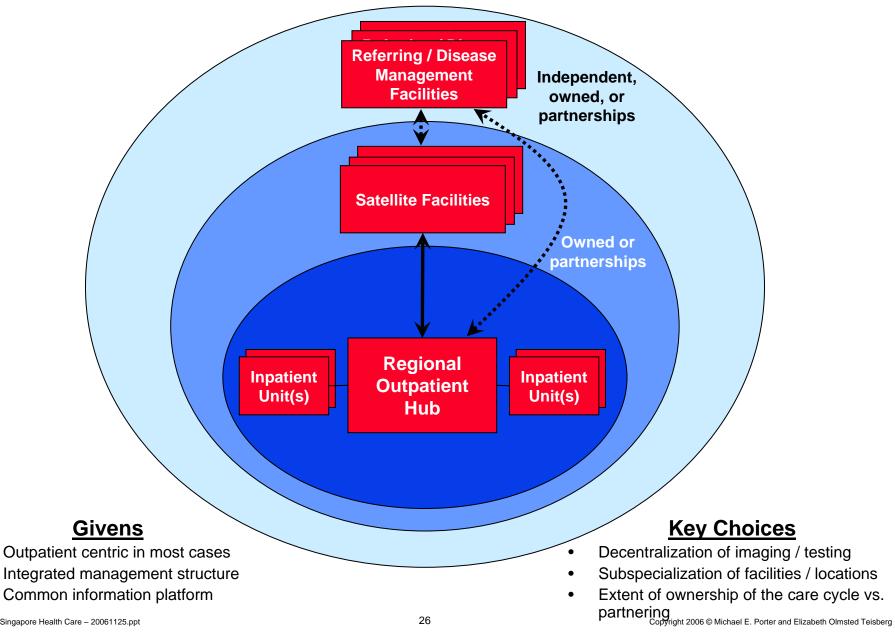
The Care Delivery Value Chain Chronic Kidney Disease

INFORMING MEASURING	 Lifestyle counseling Diet counseling Serum creatinine Glomerular filtration rate (GFR) Proteinuria 	the diagnosis and implications	 Procedure- specific pre- testing 	 Medication counseling and compliance follow-up Lifestyle and diet counseling Procedure-specific measurements 	 seling and compliance follow-up Lifestyle and diet counseling Kidney function tests 	 Medication compliance follow-up Lifestyle & diet counseling RRT therapy options counseling Kidney function tests Bone metabolism Anemia 				
ACCESSING	Office visits Lab visits MONITORING/ PREVENTING Monitoring renal function (at least	 scans Office visits Lab visits DIAGNOSING Medical and 	Various PREPARING Formulate a tractment plan	Hospital visits INTERVENING Pharmaceutical	• Telephone/ Internet interaction RECOVERING/ REHABING •Fine-tuning drug	MONITORING/ MANAGING •Managing renal function				
	function (at least annually) •Monitoring and addressing risk factors (e.g. blood pressure) •Early nephrologist referral for abnormal kidney function	family history • Directed advanced testing • Consultation with other specialists • Data integration • Formal diagnosis	treatment plan • Procedure- specific preparation (e.g. diet, medication) • Tight blood pressure control • Tight diabetes control	•Kidney function (ACE Inhibitors, ARBs) <u>Procedures</u> •Renal artery angioplasty <u>Urological</u> (if needed) <u>Endocrinological</u> (if needed) •Vascular access	regimen •Determining supporting nutritional modifications	 Managing kidney side effects of other treat- ments (e.g. cardiac catheterization) Managing the effects of associated diseases (e.g. diabetes, hyper- tension, uremia) Referral for renal replacement 				
		Feedback Lo	Dops	graft at stage 4		therapy (RRT)				

Levels of Medical Integration Within Medical Conditions versus Across Medical Conditions

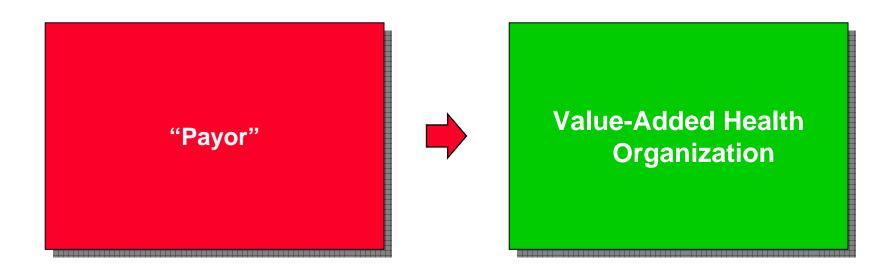


Configuring a Regional Integrated Practice Unit for a Medical Condition



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Moving to Value-Based Competition Health Plans



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Transforming the Roles of Health Plans

Old Role: culture of denial

- Restrict patient choice of providers and treatment
- Micromanage provider
 processes and choices
- Minimize the cost of each service or treatment
- Engage in complex paperwork and administrative transactions with providers and subscribers to control costs and settle bills
- Compete on minimizing premium increases

New Role: enable value-based competition on results

 Enable informed patient and physician choice and patient management of their health

Measure and reward providers



- over the **full care cycle**

Maximize the value of care

based on results

 Minimize the need for administrative transactions and simplify billing



 Compete on subscriber health results

Moving to Value-Based Competition Roles of Health Plans

Provide Health Information and Support to Patients and Physicians

- 1. Organize around **medical conditions**, not geography or administrative functions
- 2. Develop measures and assemble results **information** on providers and treatments
- 3. Actively support provider and treatment choice with information and unbiased counseling
- 4. Organize information and patient support around the **full cycle of care**
- 5. Provide comprehensive disease management and prevention services to all members, even healthy ones

Restructure the Health Plan-Provider Relationship

- 6. Shift the nature of **information sharing** with providers
- 7. Reward provider **excellence** and value-enhancing **innovation** for patients
- 8. Move to **single bills** for episodes and cycles of care, and **single prices**
- 9. Simplify, standardize, and eliminate **paperwork** and **transactions**

Redefine the Health Plan-Subscriber Relationship

- 10. Move to **multi-year subscriber contracts** and shift the nature of plan contracting
- 11. End cost shifting practices, such as re-underwriting, that erode trust in health plans and breed cynicism
- 12. Assist in managing members' medical records

Moving to Value-Based Competition **Employers**

- Set the goal of increasing health value, not minimizing health benefit costs
- Set new expectations for health plans, including **self-insured** plans
- Provide for health plan continuity for employees, rather than plan churning
- Enhance provider competition on results
- Support and motivate employees to make good health care choices and manage their own health
- Find ways to expand insurance coverage and advocate reform of the insurance system
- Measure and hold employee benefit staff accountable for the company's health value received

Moving to Value-Based Competition

- Participate actively in managing personal health
- Expect relevant information and seek advice
- Make treatment and provider choices based on excellent results and personal values, not convenience or amenities
- Choose a health plan based on value added
- Build a long-term relationship with an excellent health plan
- Act responsibly



• Consumers cannot (and should not) be the **only** drivers

Roles of Government in Value-Based Competition

- Require the collection and dissemination of the risk-adjusted outcome information
- Open up value-based competition at the right level
- Enable bundled prices and price transparency
- Limit or eliminate price discrimination
- Develop information technology standards and rules to enable interoperability and information sharing
- Invest in medical and clinical research



• Medicare can be a driver

Issues for Singapore

Insurance / Coverage

- + Near universal insurance
- + Individual role in medical savings and payment for care
- Little **individual responsibility** for healthy living, screening, and compliance
- Hospital centric focus in terms of coverage

Delivery System

- + Free choice of providers by patients / referring physicians (except outside of Singapore)
- + **Competition** among providers and provider groups
- + **Competition** among health plans
- No / little results or outcome information across all medical condition / care cycles
- Hospital centric delivery system
- Limited / non-existent medical condition integration
- Discrete services versus care cycle structure
 - Delivery
 - Pricing
- Limited / passive role of health plans
- Limited / passive role of employers

Implications for Developing Countries

- Avoid copying the outmoded delivery systems of advanced economies
- Prevention, early detection, and disease management are the highest-value areas for investment
- Organize delivery using an outpatient-centric model versus the traditional hospital-centric model
- Organize hub and spoke systems around medical conditions versus proliferate local broad line hospitals and clinics
- Adopt a common IT platform using international definitions of diseases and interventions as well as interoperability standards to support value-based delivery models and integration across the country
 - Take advantage of the absence of legacy systems



- Singapore can provide integrated health management services for medical conditions throughout the region
- Singapore can serve as a hub for complex services
- Singapore providers can operate integrated regional delivery networks